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| Civil 1 | | | Application No. | 09/8 | 23,733 | | · · |
|---|---|---|--|------------------------|-----------------------------|--|------------|
| TRANSMITTAL FORM | | | Filing Date | | ch 30, 2001 | | |
| (to be used for all | correspondence afte | r initial filing) | First Named Inventor | | Edward L. Schware CEIVI | | |
| | Art Unit | 2625 | | KEUEI | V ♯U. | | |
| | | | Examiner Name | Yubi | n Hung | JUL 2 7 | 2004 |
| Total Number of | Pages in This Submission | on 31 | Attorney Docket Number | r 7445 | 1P126 To | | |
| | ENCLOS | SURES (chec | k all that apply) | | | chnology Co | =HIE 2000 |
| Fee Transmittal | | Drawing(s) | | | After Allowa to Group | ance Communica | tion |
| Fee Attac | ched | Licensing-r | elated Papers | | Appeal Cor | nmunication to Bo and Interferences | pard |
| Amendment / R | esponse | Petition | | | Appeal Con | nmunication to Gr , Brief, Reply Brief) | |
| After Fina | al /declaration(s) | Petition to (| Convert a Application | | Proprietary | Information | |
| Extension of Tin | ne Request | Power of A Change of | ttorney, Revocation Correspondence Addres | | Status Lette | er | |
| Express Abando | onment Request | Terminal Di | isclaimer | | Other Enclo (please ider | | |
| Information Disc | closure Statement | Request for | Refund | | Transmitta Drawings | al of Formal | |
| PTO/SB/0 Certified Copy of Document(s) | | CD, Number of CD(s) - Return postcard | | | | stcard | |
| Response to Mi | | Remarks | | | | | |
| لسا | aration/POA e to Missing ler 37 CFR 53 | | | | | | |
| | SIGNATURE | OF APPLICAN | IT, ATTORNEY, OR A | GENT | | | \dashv |
| Firm or | Michael J. Malli | e, Reg. No. 36 | 5,591 | | | | |
| Individual name | BLAKELY, SO | OKOLOFF, T | AYLOR & ZAFN | IAN L | LP | | |
| Signature | Or | | | | | | |
| Date | 2/19 | υ Υ | | | | | |
| | | | ING/TRANSMISSION | | | | |
| I hereby certify that thi sufficient postage as f 22313-1450. | s correspondence is bei irst class mail in an enve | ing deposited with elope addressed t | the United States Posta o: Commissioner for Pat | l Service ents, P.O | on the date . Box 1450, | shown below with Alexandria, VA | ` |
| Typed or printed na | me Debra L. Rig | gio | | | 1/3 | 20/2004 | |
| Signature | Juna | A (Ka) | MU | Date | Ju | ıly 20, 2004 | |

Based on PTO/SB/21 (04-04) as modified by Blakely, Solokoff, Taylor & Zafman (w/r) 04/04/2004. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

| <i>"</i> | 0 | P | E | |
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| B. | | | | 77 |

FEE TRANSMITTAL for FY 2004

Effective 01/01/2004. Patent fees are subject to annual revision.

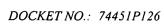
Applicant claims small entity status. See 37 CFR 1.27.

TOTAL AMOUNT OF PAYMENT (\$)

| Complete if Known | | | | | |
|----------------------|--------------------|---|--|--|--|
| Application Number | 09/823,733 | | | | |
| Filing Date | March 30, 2001 | | | | |
| First Named Inventor | Edward L. Schwartz | - | | | |
| Examiner Name | Yubin Hung | | | | |
| Art Unit | 2625 | | | | |
| Attorney Docket No. | 74451P126 | | | | |

Date

| METHOD OF PAYMENT (check all that apply) | | | | FE | E CALCULATION (continued) |
|---|--------------|-------------------------|--------------|-------------|---|
| Check ☐ Credit card ☐ Money ☐ Other ☐ None | 3. A | DDITIO | NAL | FEES | S |
| Deposit Account | Large | Entity | Sma | II Entity | <u>y</u> |
| Deposit | Fee Code | Fee (\$) | Fee Code | Fee (\$) | Fee Description Fee Paid |
| Account Number 02-2666 | 1051 | 130 | 2051 | 65 | Surcharge - late filing fee or oath |
| Deposit | 1052 | 50 | 2052 | 25 | Surcharge - late provisional filing fee or |
| Account Name Blakely, Sokoloff, Taylor & Zafman LLP | | 120 | | 130 | cover sheet. Non-English specification |
| The Commissioner is authorized to: (check all that apply) | 2053 1812 | 130 2,520 | 2053 1812 | 2,520 | For filing a request for ex parte reexamination |
| Charge fee(s) indicated below Credit any overpayments | 1804 | 920 * | 1804 | 920 1 | * Requesting publication of SIR prior to Examiner action |
| Charge any additional fee(s) or underpayment of fees as required under 37 CFR §§ 1.16, 1.17, 1.18 and 1.20. | 1805 | 1,840 * | 1805 | 1,840 | Requesting publication of SIR after RECEIVE |
| Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account | | 440 | | E E | Examine determ |
| FEE CALCULATION | 1251 1252 | 110 420 | 2251 | 55 210 | Extension for reply within first month Extension for reply within second month JUL 2 7 2004 |
| BASIC FILING FEE | 1252 | 950 | 2252 | 475 | · · |
| Large Entity Small Entity | 1254 | 1,480 | 2254 | 740 | Extension for reply within third month echnology Center |
| Fee Fee Fee Fee Fee Description Fee Paid Code (\$) Code (\$) | 1255 | 2,010 | 2255 | 1,005 | Extension for reply within fifth month |
| | 1404 | 330 | 2401 | 165 | Notice of Appeal |
| 1001 770 2001 385 Utility filing fee 1002 340 2002 170 Design filing fee | 1402 | 330 | 2402 | 165 | Filing a brief in support of an appeal |
| 1003 530 2003 265 Plant filing fee | 1403 | 290 | 2403 | 145 | Request for oral hearing |
| 1004 770 2004 385 Reissue filing fee | 1451 | 1,510 | 2451 | 1,510 | Petition to institute a public use proceeding |
| 1005 160 2005 80 Provisional filing fee | 1452 | 110 | 2452 | 55 | Petition to revive - unavoidable |
| SUBTOTAL (1) (\$) | 1453 | 1,330 1,330 | 2453 | 665 665 | Petition to revive - unintentional Utility issue fee (or reissue) |
| 2. EXTRA CLAIM FEES Edga Fee from | 1501 1502 | 480 | 2501 2502 | 240 | Design issue fee |
| Caims below Fee Paid | 1503 | 640 | 2503 | 320 | Plant issue fee |
| Total Claims . 110° = X | 1460 | 130 | 2460 | 130 | Petitions to the Commissioner |
| Independent Claims 16 = X | 1807 | 50 | 1807 | 50 | Processing fee under 37 CFR 1.17(q) |
| Multiple Dependent | 1806 | 180 | 1806 | 180 | Submission of Information Disclosure Stmt |
| Large Entity Small Entity | 8021 | 40 | 8021 | 40 | Recording each patent assignment per property (times number of properties) |
| Fee Fee Fee Fee Fee Description Code (5) Code (5) | 1809 | 770 | 1809 | 385 | Filing a submission after final rejection (37 CFR § 1.129(a)) |
| 1202 18 2202 9 Claims in excess of 20 1201 86 2201 43 Independent claims in excess of 3 | 1810 | 770 | 2810 | 385 | For each additional invention to be |
| 1203 290 2203 145 Multiple Dependent claim, if not paid | 1 | | | | examined (37 CFR § 1.129(b)) |
| 1204 86 2204 43 **Reissue independent claims over original | 1801 | 770 | 2801 | 385 | Request for Continued Examination (RCE) |
| patent 1205 18 2205 9 **Reissue claims in excess of 20 and over | 1802 | 900 | 1802 | 900 | Request for expedited examination of a design application |
| 1205 18 2205 9 **Reissue claims in excess of 20 and over original patent | Other fe | e (specify) | | | |
| SUBTOTAL (2) (\$) | . | | | | |
| **or number previously paid, If greater, For Reissues, see below | "Reduced | by Basic Film | g ree Pai | 3 | SUBTOTAL (3) (\$) |
| SUBMITTED BY | - | | | | Complete (if applicable) |
| Name (Print/Type) Michael J. Mallie | | egistratio tomey/Age | | 3 | Telephone (408) 720-8300 |
| Signature | | | | | Date Flugg |





IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

EDWARD L. SCHWARTZ, ET AL.

Application No.:

09/823,733

Filed:

March 30, 2001

For:

CONTEXT MODEL ACCESS TO MEMORY BASED ON RUN AND SKIP COUNTS AND CONTEXT MODEL

SKIPPING

Art Group:

2625

Examiner:

Yubin Hung



JUL 2 7 2004

nechnology Center 2600

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

TRANSMITTAL OF FORMAL DRAWINGS

Sir:

Enclosed herewith for filing in the above-identified U.S. Patent Application are the formal drawings, 26 sheets including 37 Figures. Please charge any additional fees or credit any overpayment to Deposit Account No. 02-2666. A duplicate copy of the Fee Transmittal is enclosed for this purpose.

Respectfully submitted,

Blakely, Sokoloff, Taylor & Zafman LLP

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12400 Wilshire Boulevard, 7th Floor Los Angeles, CA 90025 Telephone: (408) 720-8300

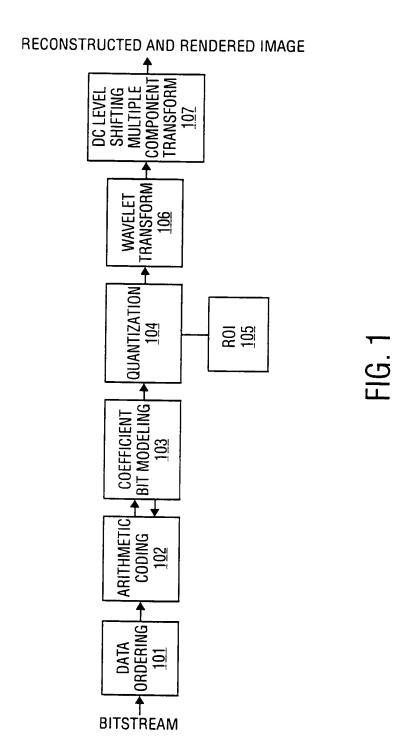
22313-1450.

07/20/04

Date

Debra L. Riggio







| | SP 0 | | SP 4 | | C 8 | C 12 | | C 16 | | C 20 | | C 24 | | C 28 | |
|---|-----------------|---|----------------|---|--------------|-------------------|---|--------------|--|------------------|---|-----------------|---|---------|--|
| | R 1 | 1 | SP 5 | | , C , 9 | C 13 | | C 17 | | C 21 | | C 25 | | C 29 | |
| | R 2 | | I SP I 6 | 1 | I SP I 10 | SP 14 | 1 | I SP I | | I C I 22 I | | C 26 | | C 30 | |
| | SP 3 | | SP 7 | | 11 11 | R 15 | | SP 19 | | C 23 | | C 27 | | C 31 | |
| - | C 32 | | SP 36 | | SP 40 | I SP I 44 I | | SP 48 | | C 1 52 | | C 56 | | C 60 | |
| | C 3 3 | | C 37 | | C 41 | C 45 | | C 49 | | C 53 | | C 57 | | C 61 | |
| | C 34 | | C 38 | | C 42 | C 46 | | C 50 | | C 54 | 1 | C 58 | | C 62 | |
| 1 | C 25 | | C I 39 | 1 | C 43 | C 47 | | C 51 | | C 55 | 1 | C 5 9 | 1 | C 63 | |

FIG. 2A



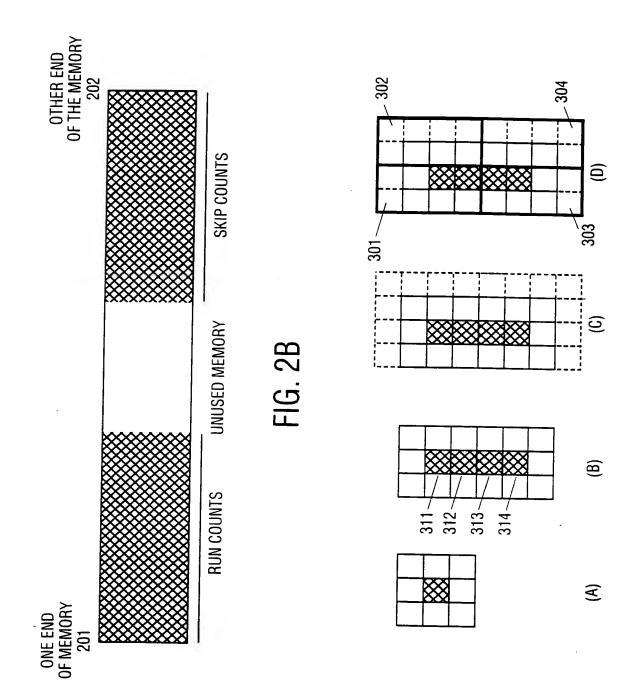


FIG. 3



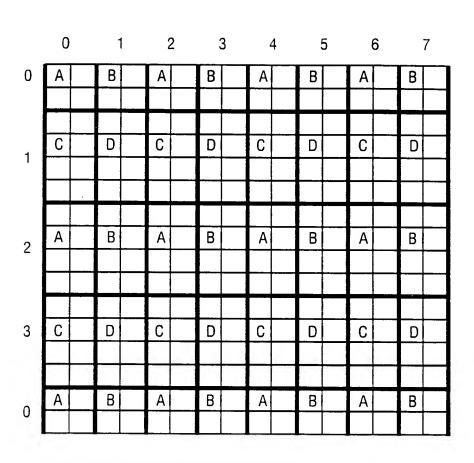
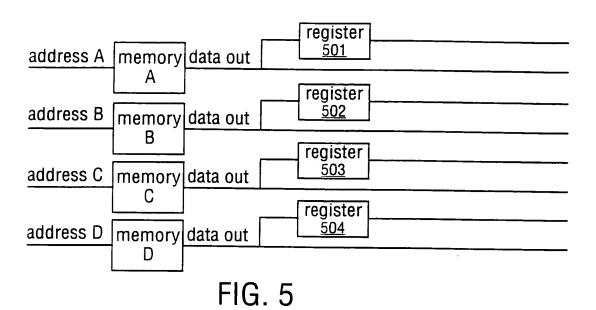


FIG. 4





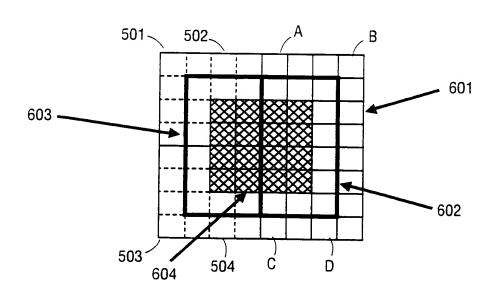
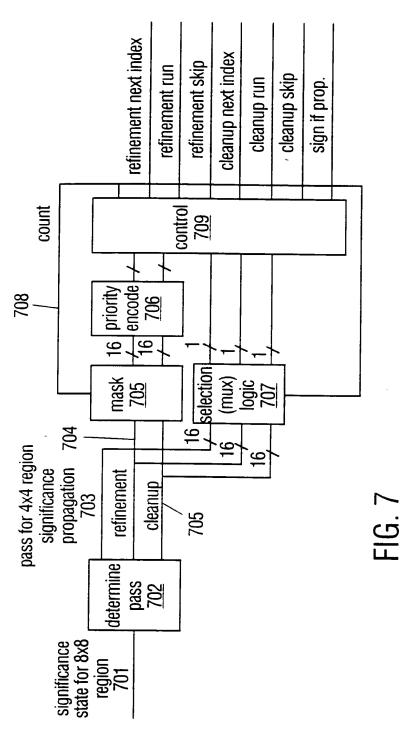


FIG. 6





6 for C and R pass coefficients SP pass: 10*2 for SP pass coefficients C pass: 4*2 for C pass coefficients R pass: 2 for R pass

SP = significance propagation

SP

SP SP SP

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R = refinement C = cleanup

SP

SP

S

Sp

SP

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SP

total: 36 clocks = 2.25 clocks per coefficient

FIG. 8



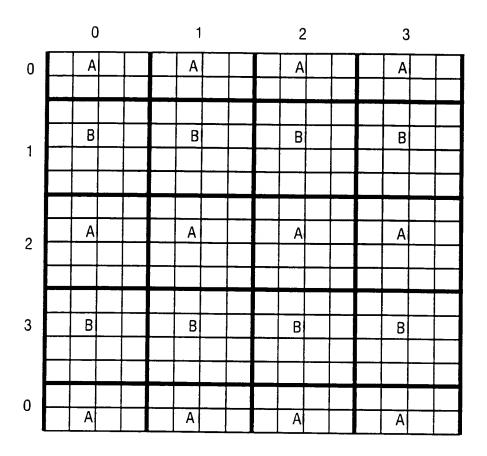
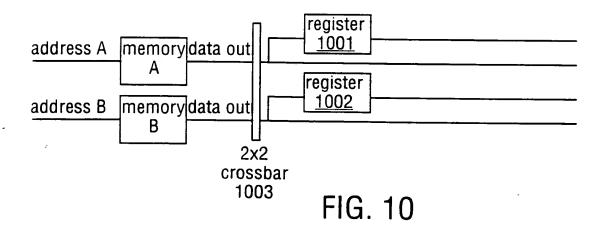
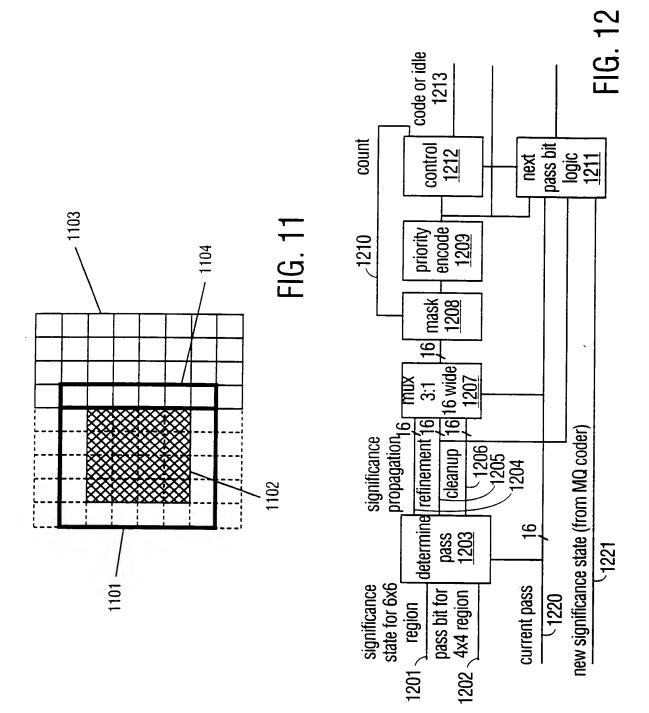


FIG. 9







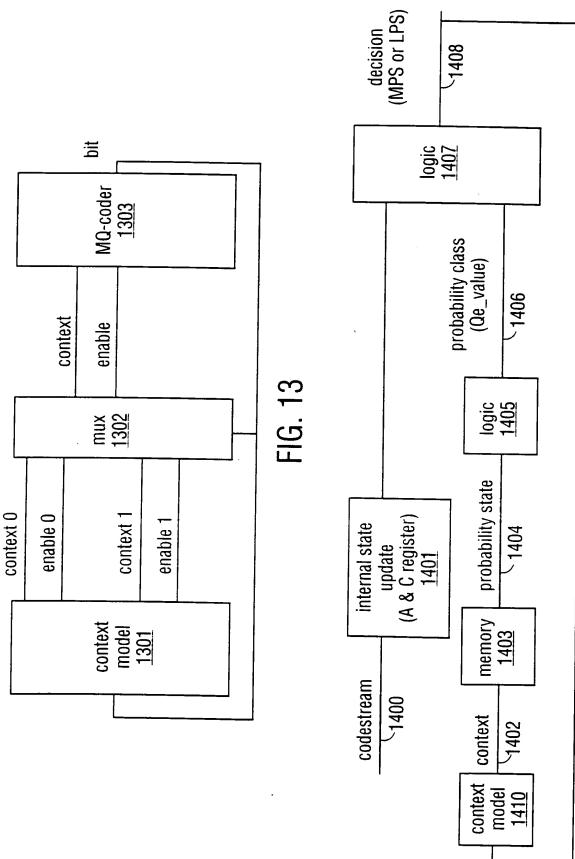


FIG. 14A



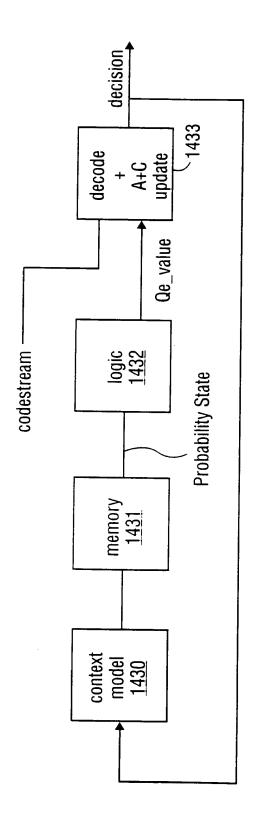


FIG. 14B



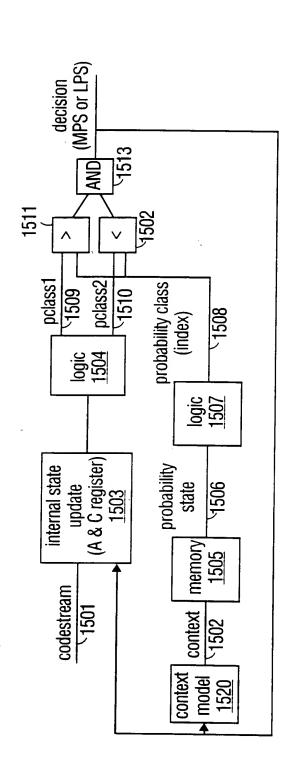
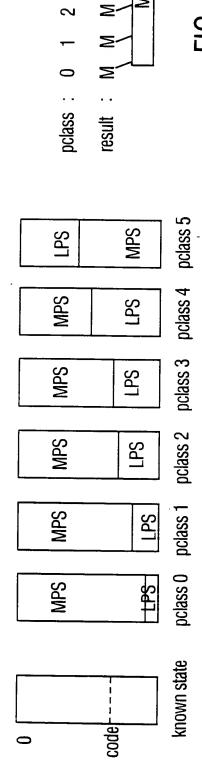


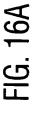
FIG. 15



2

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FIG. 16B





5MPS 4 MPS 3 MPS 2 MPS 1 MPS LPS

FIG. 17



| lum | inance | chro | minance | chro | chrominance | | |
|-----------|--------|-----------------------------------|---------|-----------|-------------|--|--|
| A A A A A | D | B B B B B | D | C C C C | D | | |
| А | A | В | В | С | С | | |
| | | | (A) | | | | |
| A A A A | В | C C C C | D | E E E | F | | |
| В | A | D | С | F | E | | |
| | | | (B) | | | | |
| F F B A A | С | G G C B C | F | E E E D D | Е | | |
| А | В | D | Н | G | Н | | |
| | | | (C) | | | | |

FIG. 18



| lum | inance | chrominance | chrominance |
|---------|--------|-------------|-------------|
| A A A | В | C C C | D D D D D |
| В | A | С | D |
| | | (A) | |
| F F F | С | B B C A B | D D F E E E |
| A | В | D | E |
| | | (B) | |
| A A A A | С | E E E | G G G G G |
| В | D | F | Н |
| | | (C) | |

FIG. 19



| | inance | chrominance | chrominance | | |
|-----------|--------|-------------|-------------|--|--|
| A A D D A | С | B B D D B | C C D C | | |
| А | В | | | | |
| | | (A) | | | |
| A A A A | С | E E E | F F F | | |
| В | D | | | | |
| | | (B) | | | |
| A A H B A | E | F F H B F | G G H B G | | |
| . C | D | | | | |
| | | (C) | | | |

FIG. 20



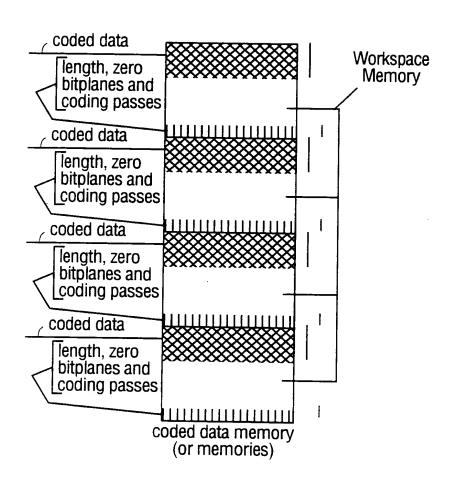
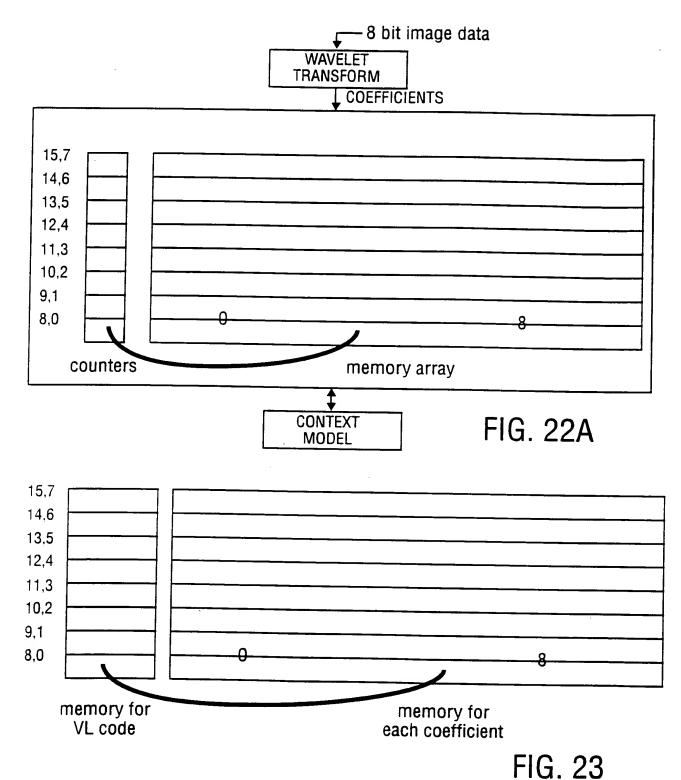


FIG. 21







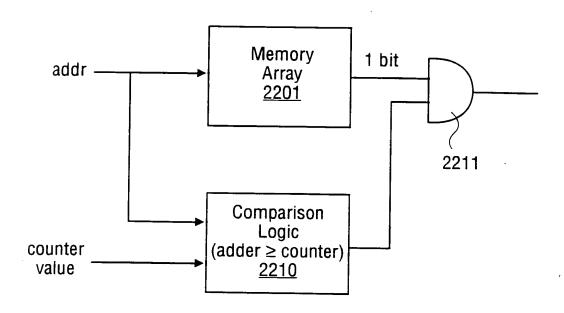
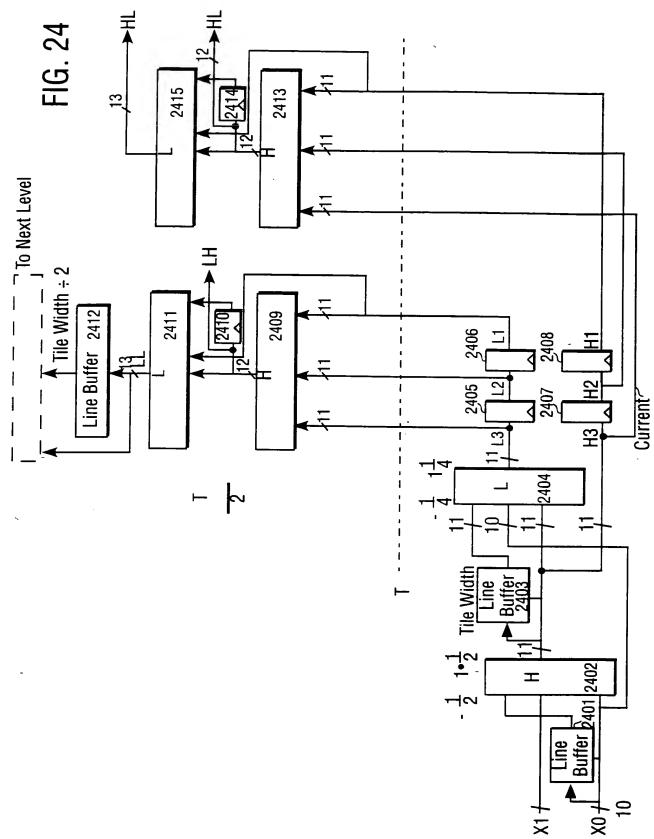
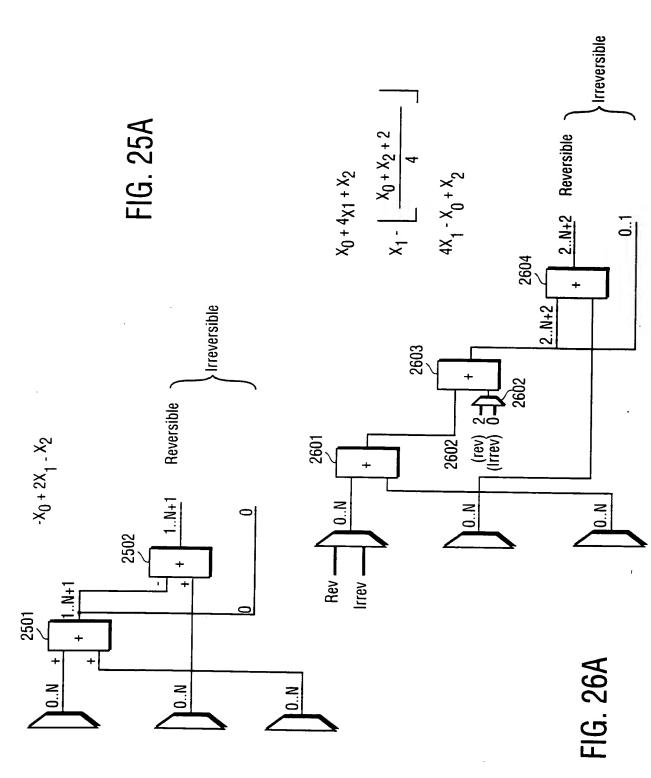


FIG. 22B

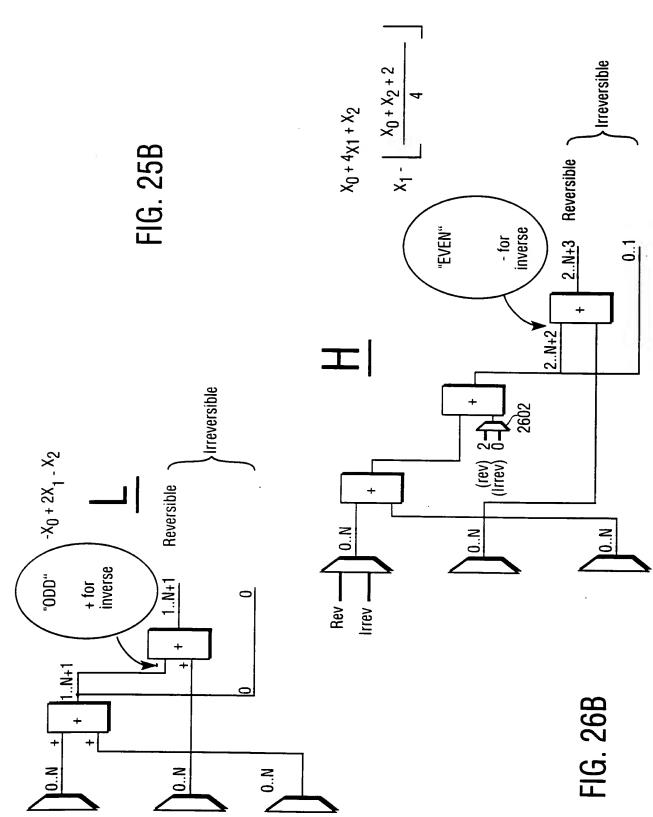


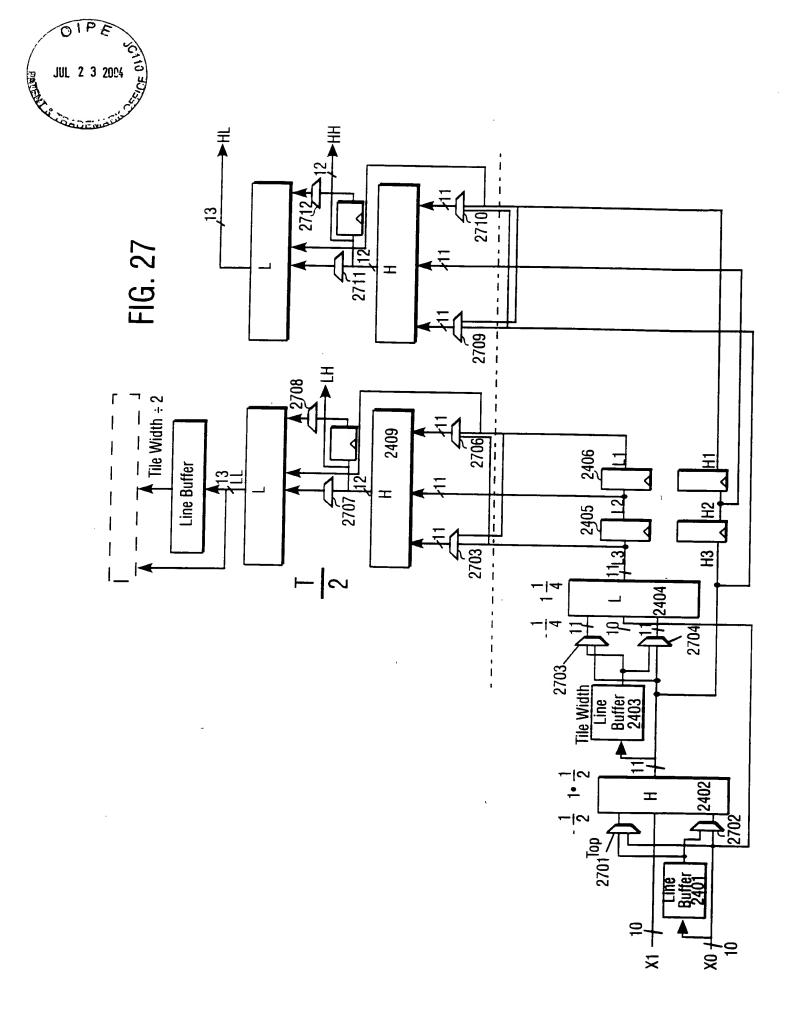




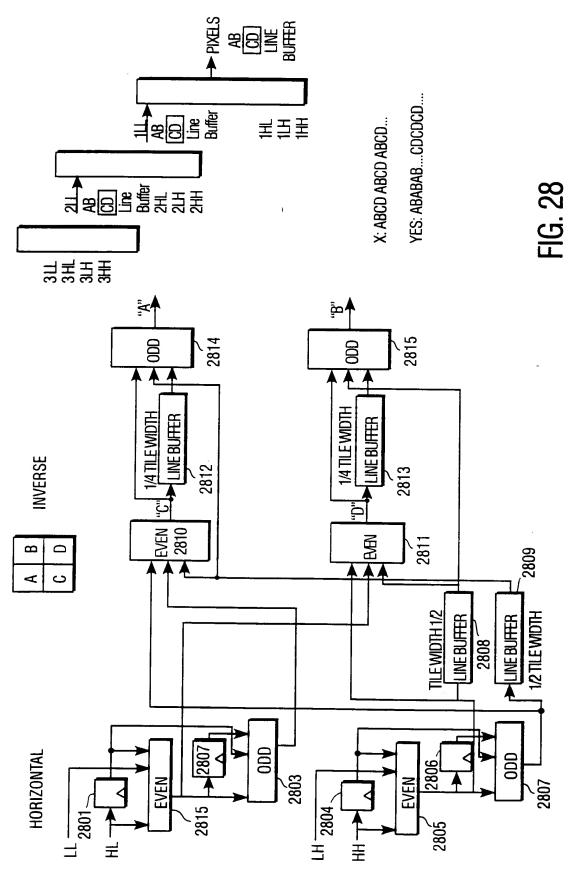














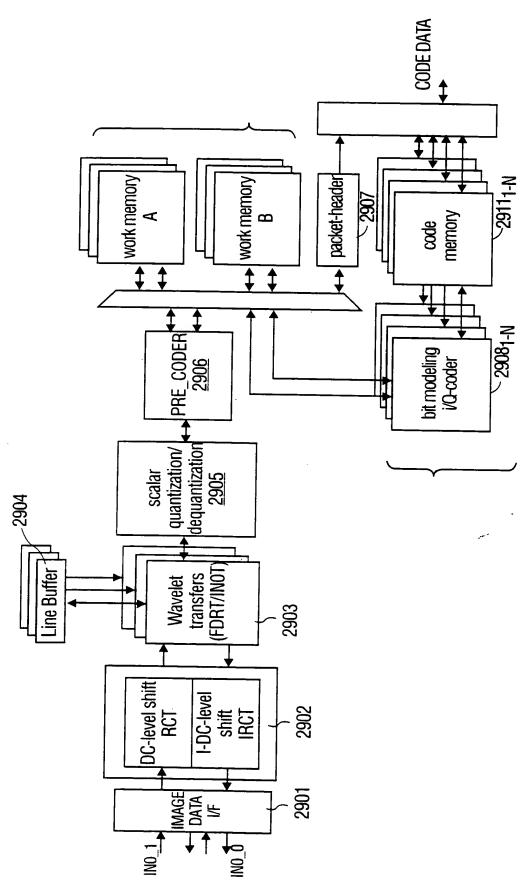


FIG. 29



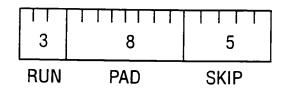


FIG. 30

8x8 region

| Α | В | С | | |
|---|---|---|--|--|
| D | E | F | | |
| G | H | I | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

FIG. 31



